

## **REMARKS**

This is in response to the Office Action dated September 30, 2003. The Office Action rejected claims 1-31 under 35 U.S.C. §103(a), as being unpatentable over Wong et al., U.S. Patent 6,330,460 ("Wong"). Claims 1-31 remain under consideration.

### **35 U.S.C. §103(a) Rejection**

The Office Action rejects claims 1-31 under 35 U.S.C. § 103(a) as being unpatentable over Wong. In order for an invention to be obvious under 35 U.S.C. §103(a), there must be some suggestion to combine or modify cited prior art references in a manner that would show or suggest the claimed invention. Regarding the current rejection, only one reference is cited and, as a result, there must be some suggestion within Wong to modify Wong to incorporate all the limitations of the rejected claims.

Claims 1, 10 and 18 of the present invention each claim, in part:

"the amount of energy directed in the direction of each of the terminals being a function of the locations and acceptable receive strengths of at least two of the terminals."

The Wong reference, on the other hand, teaches a method for selecting compatible combinations of mobile terminals to which simultaneous signal transmission from a transmitter is possible. Specifically, at column 10, lines 7-10 Wong states that "[c]ombinations of mobiles suitable for receiving simultaneous transmission are determined based on the locations and *data rates* of the particular mobile stations relative to the base station . . ." Further, at column 10, lines 14-20, Wong also teaches that:

"[a] combination of mobiles is said to be compatible for simultaneous transmission if the data rate achievable with the particular combination is equal to or greater than the data rate achievable using a common pilot, conventional HDR data rate without simultaneous beam forming for each mobile of the combination."

Accordingly, Wong teaches a method for selecting a specific combination of mobiles for simultaneous transmission as a function of data rates experienced by those mobiles as long as the data rate experienced by each mobile is equal to or greater than the data rate when no simultaneous transmission to each mobile is experienced.

For the following reasons, Wong does not teach nor does Wong suggest any modification to its teachings to render obvious the necessary claimed elements of claims 1, 10 and 18.

**I. Wong Does Not Teach Claim Element of “Measuring Acceptable Signal Strength”**

As the Office Action correctly notes, Wong does not teach the claimed element in claims 1, 10 and 18 of “directing energy in a plurality of directions, the amount of energy directed in the direction of each of the terminals being a function of the locations and acceptable receive strengths of at least two of the terminals.” More specifically, at no place in Wong is it suggested (nor is there any suggestion to modify Wong’s teachings) to measure the acceptable signal strength of the mobile. As defined in the specification of the present application, the “acceptable signal strength” of claims 1, 10 and 18 is that signal strength that is the “substantially minimum acceptable receive strength.” This is not the same as the teachings of Wong at column 16-20 that the data rate achievable with the particular combination (of mobiles) is equal to or greater than the data rate achievable using a common pilot, conventional HDR data rate without simultaneous beam forming for each mobile of the combination. In fact, Wong does not at any point teach measuring signal strength, only data rate.

Official Notice: Applicants recognize that the Office Action has taken official notice that:

“it would have been obvious to one of ordinary skill in the art at the time of the invention that voltage and signal strength, although not explicitly stated, actually is measured by the data rate at which the terminal operates. The stronger the signal (voltage), the higher the data rate of the terminal, therefore in Wong’s teachings the signal strength is, in an implicit manner, measured by voltage, and is measuring the signal strength.”

As indicated above, applicants respectfully disagree with the above statement that “voltage and signal strength . . . actually is measured by the data rate at which the terminal operates.” While applicants recognize that signal strength may be proportional to the data rate assigned to a mobile terminal in some cases, this is not necessarily the case. Additionally, the converse (using data rate to measure signal strength, as suggested by the Office Action) does not follow. In fact, the data rate experienced by a mobile terminal may be the result of a number of factors, of which signal strength is but one. As a result, a lower data rate may be experienced even though signal strength is constant or, in some cases, a constant data rate may be maintained even though signal strength varies. Accordingly, contrary to the assertions of the Office Action, the signal strength is not capable of measurement by the data rate.

If the Office maintains its position, applicants respectfully request that the Office provide support for the taking of official notice. Specifically, applicants request that support be provided for the teaching that “voltage and signal strength, although not explicitly stated, actually is measured by the data rate at which the terminal operates.”

Wong does not teach nor does it suggest any modification to its teachings to contemplate this necessary element of claims 1, 10 and 18. Therefore, claims 1, 10 and 18 are patentable over Wong.

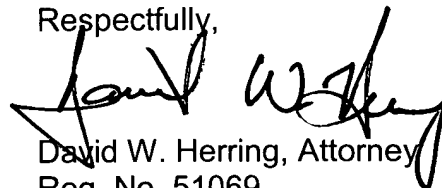
**II. Wong Does Not Teach Claim Element of “The Amount of Energy Directed in the Direction of Each of the Terminals Being a Function of the Locations and Acceptable Receive Strengths of at Least Two of the Terminals”**

Wong explicitly teaches only determining which combination of mobiles are suitable for receiving simultaneous transmission. This is not what is claimed in the present invention. Instead, the present invention claims directing energy in a plurality of directions as a function of locations and acceptable receive strengths. The present invention does not claim to select an appropriate combination of mobiles and, more importantly, Wong does not teach a method of determining the energy levels to be transmitted in the direction of a plurality of terminals. Accordingly, Wong does not teach nor does it suggest any modification to its teachings to render obvious this necessary element of claims 1, 10 and 18. Therefore, claims 1, 10 and 18 are patentable over Wong for this additional reason.

#### **IV. Conclusion**

For the foregoing reasons, Wong does not teach nor does it suggest all necessary elements of claims 1, 10 and 18 of the present invention. Accordingly, applicants respectfully suggest that claim 1, 10 and 18 are not obvious over Wong. Therefore, applicants respectfully request that claim 1, 10 and 18 are allowable over Wong. It follows that claims 2-9 and 11-17, and 19-31 are also allowable over Wong as being dependant upon an allowable base claim

Respectfully,

  
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